



# Understanding EDCs: Sources, Products, and Exposure Pathways

## 1. What Are EDCs

Endocrine-disrupting chemicals (EDCs) are synthetic or naturally occurring compounds that interfere with hormonal systems, even at low doses. Many EDCs are intentionally manufactured for use in industrial processes, consumer goods, and agricultural applications. Others are unintended byproducts of chemical reactions, combustion, or degradation. For example, phthalates are added to plastics to increase flexibility, parabens are used as preservatives in cosmetics, and bisphenols are used in the production of polycarbonate plastics and epoxy resins. Meanwhile, persistent organic pollutants like dioxins and polychlorinated biphenyls (PCBs) are formed during waste incineration or industrial manufacturing and can linger in the environment for decades.

## 2. Where Are They Found?

Once released, EDCs can be found in everyday products such as cosmetics, personal care items, food packaging, cleaning agents, and textiles.

## 3. How Do They Enter The Body

EDCs move from environmental sources into consumer products and ultimately enter the human body through three primary routes:

- **Inhalation of airborne particles** and indoor dust
- **Absorption** through skin contact with treated surfaces and personal care products
- **Ingestion** via contaminated food, water, and packaging materials

## 4. What Happens In The Body

EDCs interfere with the body's finely tuned hormone systems, which regulate everything from growth and metabolism to reproduction and brain development. These chemicals can alter hormone levels, block natural hormones from binding to their receptors, or mimic hormones entirely, leading to a cascade of health problems.



## 5. Key Takeaway

EDCs are widespread in consumer products and the environment. Their effects can be long-lasting, especially when exposure occurs during sensitive stages of development. Understanding these pathways is essential for reducing exposure and making informed choices. Complete avoidance is difficult; however, awareness empowers individuals, educators, and policymakers to advocate for safer alternatives and protective regulation.